

# Intel<sup>®</sup> Server Boards/Systems

## 3000 and 5000 Series Chipsets

### *Tested Hard Drive List*

*Notice: This document will be discontinued in March 2009.*

*Please refer to the Sever Configuration tool for a complete list of tested hard drives at:  
<http://serverconfigurator.intel.com/default.aspx>*



Revision 23.0

February, 2009

Enterprise Platforms and Services Marketing

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## Revision History

Date	Revision Number	Modifications
January 2007	1.0	Initial release.
January 2007	2.0	Updated and made corrections to drive form factor column, and various part number updates.
January 2007	3.0	Added a note to 2.5-inch form factor drives. Added additional tested drives (in shaded area).
February 2007	4.0	Added Intel® Server System SR1500, Intel® Server System SR1550AL, and Intel® Server System SR2500AL to tables. Added additional tested drives (in shaded area).
March 2007	5.0	Updated report format. Added drive classification column and applicable notes. Added additional tested drives (in shaded area).
April 2007	6.0	Removed SCSI hard drive section as the S3000 and S5000 product families do not have an onboard SCSI controller. All SCSI drives were tested using an add-in SCSI device and will be listed on the product THOL only. Removed SAS drives from the S3000AH product family as there is not an onboard SAS controller. Testing was done using an add-in SAS controller device and will be listed in the product THOL only. Removed Seagate* Barracuda 7200.10 ES 500GB and 750GB drives from the S5000PAL, SR1500AL, and SR2500AL product families.
May 2007	7.0	Identifying EOL drives (In shaded area) EOL drives will be remove in the next revisionof this report. Added Hitachi Ultrastar 15K300 SAS drives. (in shaded area)
June 2007	8.0	Removed EOL's drives from this report. Added Hitachi Travelstar SATA and Ultrastar SAS drives to the S5000PAL family. Added Seagate Savvio SAS drives to the S5000PAL family. (in shaded area)
August 2007	9.0	Added Western Digital drives. (in shaded area) Added colum to identify drives that have completed RV testing.
October 2007	10.0	Added Seagate and Hitiachi drives. (in shaded area) Updated product families.
December 2007	11.0	Added Seagate snd Hitachi drives (in shaded area).
December 2007	12.0	Added Intel® Server Board S3200SH/S3210SH, Intel® Server Board X38ML, and Intel® Server Board S5400SF products (in shaded area).
January 2008	13.0	Correction made. Added Hitachi SATA & USB drives. (In shanded area)
June 2008	14.0	Added new drives (in shaded area)
June 2008	15.0	Created seperate tables for 3000 and 5000 processor sequenced-based servers. Added new drives (in shaded area)
July 2008	15.1	Corrections made for some Hitachi drives (in shaded area)
August 2008	15.2	Corrections made for Fujitsu drives (in shaded area)
August 2008	16.0	Added new drives (in shaded area)
August 2008	17.0	Not Released
September 2008	18.0	Deleted column SR2520SAF and SR2520SAX/SR2520SAXS

Date	Revision Number	Modifications
October, 2008	19.0	Added new drives (in shaded area)
November, 2008	20.0	Added tables for Solid-State Drives. Added new drives (in shaded area)
December, 2008	21.0	Added new drives (in shaded area)
January, 2009	22.0	Document clean up. Removed PATA Drive section. Update verbiage for "SD". Added new drives (in shaded area)
February, 2009	23.0	Added new drives (in shaded area)  <b>Note:</b> Supported adapters, peripherals, hard drives and memory have been added for each Intel® Server product in the Server Configurator Tool. This document will be discontinued in March 2009. Please refer to the Sever Configuration tool for a complete list of tested hard drives at: <a href="http://serverconfigurator.intel.com/default.aspx">http://serverconfigurator.intel.com/default.aspx</a>

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# 1. Overview

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This document covers the Intel® 5000 Series Chipsets–based server boards and systems, as well as the Intel® 3000 Series Chipsets–based server boards and systems. It is intended to provide users with a list of hard drives tested by Intel validation labs and/or by individual drive vendors.

This document will continue to be updated as new hard drives are tested. Each new release of the document will present updated information as well as continue to provide the information from previous releases.

Hard drive manufacturers develop drives to meet specific customer requirements for reliability, capacity, performance and power consumption. Using drives in the application for which they were designed ensures your data is available when and how you need it. Using drives outside of their intended application can negatively affect the productivity and profitability of your business.

A hard drive is a non-volatile storage device which typically stores data on rapidly rotating magnetic platters. Data is usually read/written by a device which is nanometers away from the surface of the platters. Accordingly, vibration can significantly affect hard drive reliability and performance.

There are a number of factors that can cause drives to vibrate, including: vibrations from other drives or the drive itself, spindle imbalance/torque, tolerance for rotational input, server capability, population density, and properties of the systems chassis. These vibrations can cause the read/write heads to be knocked off the data track. When this happens, a retry is required to ensure integrity of the read/write data. A retry requires milliseconds of time, however, because drive and storage subsystem electronics are operating in micro or nanoseconds, a wait of milliseconds significantly reduces the overall performance of the storage solution.

Two general categories of drives have evolved to meet customers' needs:

- **Desktop** drives perform at an acceptable level when rotational vibration does not exceed 10 radians per second. Desktop drives are typically used in single or dual – drive environments where rotational vibration is limited. A desktop drive is built to have typical reads or writes 50 to 80 times a day over an 8-hour period, 5 days a week. Desktop drives are designed to work in environments that do not exceed 25 degrees Celsius. As heat increases, the MTBF decreases and the drives are more likely to fail.
- **Enterprise** drives perform at an acceptable level when rotational vibration does not exceed 21 radians per second. Enterprise drives are typically used in multi-drive environments where rotational vibration is normally above 10 radians per second. Enterprise drives are built using more advanced technology and components to meet the performance, workload, and reliability needs to perform hundreds of thousands of read/writes per second, 24 hours a day, 7 days a week. Enterprise drives are also designed for higher temperatures. The low end of their temperature specification is at the high end of the desktop specification, making enterprise drives highly reliable in applications where desktop drives fail. Enterprise drives usually have a longer warranty period than desktop drives. Enterprise drives

often have advanced power management. These modes reduce power consumption along with server cooling requirements, both of which equate to lower operational costs and less thermal impact on surrounding system components. Enterprise drives with error recovery control have the ability to quickly respond with data or return an error to the host controller. With a quick response the RAID set is preserved through rebuilding of requested data. Full RAID set rebuilds are executed for true drive failures. To lower costs on desktop drives, error recovery is not a common feature. A desktop drive in a similar situation would respond too slow to preserve the RAID and the drive is flagged for replacement. The RAID set would operate in a slower degraded mode until the drive was replaced. Complete loss of data is possible if another drive times out during the degraded mode. With higher MTBF and error recovery, enterprise level drives offer greater reliability than desktop drives in the server environment.

Hard drives last longer when used in the application for which they were designed. Desktop drives often lack workload management to lower thermal stresses; have a lower tolerance for the normal rotational vibration found in a server environment; are not designed to run twenty four hours a day, seven days a week; and may fail prematurely when installed in a server. To get the best performance and avoid drive failures Intel recommends using enterprise drives for server applications.

## 2. Product Information

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Hard drive testing is performed on system in the configurations as shipped by Intel.

Dual-Core Intel® Xeon® processor 3000 sequence-based servers included in this report:

- **Intel® Server Board S3000AH product family**
  - Intel® Server System SR1530AH - supports two 3.5-inch Fixed SATA drives
  - Intel® Server System SR1530AHLX - supports three 3.5-inch Hot-Swap SATA drives
- **Intel® Server Board S3000PT**
- **Intel® Server Board S3200SH/S3210SH product family**
  - Intel® Server System SR1530SH – supports two 3.5-inch fixed SATA drives
  - Intel® Server System SR1530HSH – supports three 3.5-inch hot-swap SATA drives
- **Intel® Server Board X38ML**
  - Intel® Server System SR1520ML – supports two 2.5-inch fixed SATA drives

Multi-Core Intel® Xeon® processor 5000 sequence-based servers included in this report:

- **Intel® Server Board S5000PAL product family**
  - Intel® Server Board S5000PALR
  - Intel® Server Board S5000XAL (lead-free version)
  - Intel® Server Board S5000XALR (lead-free version)
- **Intel® Server Chassis SR2500 product family**
  - Intel® Server System SR2500ALLX – supports 3.5-inch SATA/SAS drives
  - Intel® Server System SR2500ALLXR – supports 3.5-inch SATA/SAS drives
  - Intel® Server System SR2500BRP – supports 3.5-inch SATA drives
  - Intel® Server System SR2500BRPR – supports 3.5-inch SATA drives
- **Intel® Server Chassis SR1550 product family**
  - Intel® Server System SR1550ALSAS - supports 2.5-inch SATA/SAS drives
  - Intel® Server System SR1550AL - supports 2.5-inch SATA drives
- **Intel® Server Chassis SR1500 product family**
  - Intel® Server System SR1500ALSAS – supports 3.5-inch SATA/SAS drives
  - Intel® Server System SR1500ALSASR – supports 3.5-inch SATA/SAS drives
  - Intel® Server System SR1500AL - supports 3.5-inch SATA drives
  - Intel® Server System SR1500ALR - supports 3.5-inch SATA drives
- **Intel® Server Board S5000PSL product family**
  - Intel® Server Board S5000PSLSATA – supports 3.5-inch SATA drives
  - Intel® Server Board S5000PSLSATAR – supports 3.5-inch SATA drives
  - Intel® Server Board S5000XSLSATA – supports 3.5-inch SATA drives (lead-free version)
  - Intel® Server Board S5000XSLSATAR – supports 3.5-inch SATA drives (lead-free version)
  - Intel® Server Board S5000PSLSAS – supports 3.5-inch SATA/SAS drives
  - Intel® Server Board S5000PSLSASR – supports 3.5-inch SATA/SAS drives
  - Intel® Server System S5000XVN – Workstation board
    - S5000XVNSATA – supports 3.5-inch SATA drives
    - S5000XVNSATAR – supports 3.5-inch SATA drives
    - S5000XVNSAS – supports 3.5-inch SATA/SAS drives



- S5000XVNSASR – supports 3.5-inch SATA/SAS drives
  - SC5299WS – supports 3.5-inch SATA/SAS drives
  - SC5400Base – supports 3.5-inch SATA/SAS drives
- Intel® Server System SC5400RA
- **Intel® Server Board S5000VSA product family**
  - Intel® Server Board BSA2BB – SATA board
  - Intel® Server Board BSA2BBR – SATA board
  - Intel® Server Board BSA2SASBB – SAS board
  - Intel® Server Board BSA2SASBBR – SAS board
  - Intel® Server Board BSA2VBB – SATA board
  - Intel® Server Board BSA2VBBR – SATA board
  - Intel® Server Chassis SR2520 Product family
    - Intel® Server System SR2520SAF - SATA based board fix-drive solution
    - Intel® Server System SR2520SAFR – SATA based board fix-drive solution
    - Intel® Server System SR2520SAX – SATA based board supporting SAS/SATA non-expander (passive) backplane based hot-swap
    - Intel® Server System SR2520SAXR – SATA based board supporting SAS/SATA non-expander (passive) backplane based hot-swap
    - Intel® Server System SR2520SAXS– SAS/SATA expander (active) backplane based hot-swap
    - Intel® Server System SR2520SAXSR – SAS/SATA expander (active) backplane based hot-swap
- **Intel® Server Board S5000VCL product family**
  - Intel® Server Board S5000VCL – SATA baseboard
  - Intel® Server Board BBS5000VCLR – SATA baseboard
  - Intel® Server Board S5000VCLSASBB – SAS baseboard
  - Intel® Server Board BBS5000VCLSASR – SAS baseboard
  - Intel® Server System SR1530CL – SATA baseboard supporting fixed drive system
  - Intel® Server System SR1530CLR – SATA baseboard supporting fixed drive system
  - Intel® Server System SR1530HCL – SATA based hot-swap drive system
  - Intel® Server System SR1530HCLR – SATA based hot-swap drive system
  - Intel® Server System SR1530HCLS – SAS based hot-swap drive system
  - Intel® Server System SR1530HCLSR – SAS based hot-swap drive system
- **Intel® Server Board S5400SF product family**
  - Intel® Server System SR1560SF – supports two 3.5-inch fixed SATA drives
  - Intel® Server System SR1560SFHS – supports three 3.5-inch SAS/SATA hot-swap drives

### 3. Testing Information

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Not all hard drives were tested under all operating systems. The following notation is used in the tested hard drives table below to indicate the support level that Intel provides for a particular hard drive with a particular operating system:

FT (Functionally tested)	This hard drive has been tested for compatibility only and is supported under the operating systems identified in the product specific Tested Hardware and Operating System List (refer to <a href="http://support.intel.com">http://support.intel.com</a> for details). (Note: this drive has not been tested under the new Intel Rotational Vibration testing requirements)
SD (Similar Board/Drive)	<p>The hard disk drive is supported, but not tested. This hard drive model/capacity has not been tested with this server board, but Intel will support it based on successful testing on another board or another drive was tested with a larger capacity within the same model family.</p> <p>Drive tested with a larger capacity hard drive from the same hard drive family. This drive uses the exact same firmware and drivers as a larger capacity hard drive that has been successfully tested. The only difference between this drive and the one that was used in testing is the storage capacity.</p> <p>Intel provides the same level of support for all hard drives listed in this document, regardless of whether the drive was tested or not. Customers should always test hard drives as part of the final system configuration prior to deployment. Given the fact that this drive was tested on another board or using a larger capacity hard drive from the same drive family has successfully completed testing, this particular hard drive will not be tested. Intel has high confidence that this hard drive will function correctly with the server board.</p>
RV (Rotational Vibration) Testing	This hard drive was testing in an Intel chassis and has passed Intel's Rotational Vibration testing requirements.

## 4. Tested Hard Drives

### 4.1 SATA Hard Drives - Intel® Xeon® Processor 3000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S3000AH	SR1530AH / SR1530AHLX	SR1530HAHLX	S3200SH / S3210SH	SR1530SH	SR1530HSH	S3000PT	X38ML	SR1520ML	Notes
Fujitsu*, Mercury, MHY2200BH	SATA-150	5400	200, 8 M	2.5x1	Mobil	X								SD	FT	+ This drive is only supported in a chassis that supports 2.5-inch form factor drives
Fujitsu, Mercury, MHY2250BH	SATA-150	5400	250, 8 M	2.5x1	Mobil	X								SD	FT	+ This drive is only supported in a chassis that supports 2.5-inch form factor drives
Hitachi, Deskstar 7K160, HDS721616PLA380	SATA-150/300	7200	160	3.5x1	Desktop		FT	SD	SD	SD	SD	SD				Desktop drives may experience performance loss when used in an enterprise application.
Hitachi, Deskstar 7K160, HDS721680PLA380	SATA-150/300	7200	80	3.5x1	Desktop		FT	FT	SD	SD	SD	SD				Desktop drives may experience performance loss when used in an enterprise application.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 3000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S3000AH	SR1530AH / SR1530AHLX	SR1530HAHLX	S3200SH / S3210SH	SR1530SH	SR1530HSH	S3000PT	X38ML	SR1520ML	Notes
Hitachi*, Deskstar T7K500, HDT725025VLA380	SATA-300	7200	250	3.5x1	Desktop		SD									Desktop drives may experience performance loss when used in an enterprise application.
Hitachi, Deskstar T7K500, HDT725032VLA380	SATA-300	7200	320	3.5x1	Desktop		FT									Desktop drives may experience performance loss when used in an enterprise application.
Hitachi, Deskstar T7K500, HDT725040VLA360	SATA-300	7200	400	3.5x1	Desktop		FT									Desktop drives may experience performance loss when used in an enterprise application.
Hitachi, Deskstar T7K500, HDT725040VLA380	SATA-300	7200	400	3.5x1	Desktop											Desktop drives may experience performance loss when used in an enterprise application.
Hitachi, Deskstar T7K500, HDT725050VLA360	SATA-300	7200	500	3.5x1	Desktop		FT	SD	FT					FT		Desktop drives may experience performance loss when used in an enterprise application.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

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Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 3000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S3000AH	SR1530AH / SR1530AHLX	SR1530HAHLX	S3200SH / S3210SH	SR1530SH	SR1530HSH	S3000PT	X38ML	SR1520ML	Notes
Hitachi Deskstar 7K400 HDS724040KLSA80	SATA-150	7200	400	3.5x1	Desktop		FT									This drives is geared towards low duty cycle servers and storage use.
Hitachi, Deskstar 7K1000 HDS721075KLA330	SATA-300	7200	750	3.5x1	Desktop		SD		SD							This drives is geared towards low duty cycle servers and storage use.
Hitachi, Deskstar 7K1000 HDS721010KLA330	SATA-300	7200	1000	3.5x1	Desktop	X	FT	SD	FT	SD	SD	SD				This drives is geared towards low duty cycle servers and storage use.
Hitachi*, Deskstar E7K500 HDS725050KLA360	SATA - 300	7200	500	3.5-inch	Desktop	X	SD	SD	SD	FT	FT	SD				
Hitachi, Ultrastar A7K1000 HUA721010KLA330	SATA - 300	7200	1000	3.5-inch		X	SD	SD	SD	FT	FT	SD				

**Drive Classification:**

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**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 3000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S3000AH	SR1530AH / SR1530AHLX	SR1530HAHLX	S3200SH / S3210SH	SR1530SH	SR1530HSH	S3000PT	X38ML	SR1520ML	Notes
Hitachi, Ultrastar A7K1000 HUA721075KLA330	SATA - 300	7200	750	3.5-inch		X	SD	SD	SD	FT	FT	SD				
Hitachi, Travelstar E5K250 (RoHS), HTE542525K9A300	SATA-300	5400	250, 8M	2.5x1	Mobil	X								FT	FT	+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar E7K200 (RoHS), HTS722016K9SA300	SATA-300	7200	160,16M	2.5x1	Mobil	X								FT	FT	+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Deskstar 7K1000.B HDT721010SLA360	SATA300	7200	1000 GB	3.5 x 1"	Desktop	X	SD	SD	SD	SD	SD	SD				
Seagate*, Barracuda ES 7200.10, ST3250620NS	SATA-300	7200, 16MB cache	250	3.5x1	PATA/SATA Enterprise	X	FT	FT	FT							+ This drive passed Intel's rotational vibration requirements in the SR2500AL system using the chassis RV improvements.

**Drive Classification:**

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Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 3000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S3000AH	SR1530AH / SR1530AHLX	SR1530HAHLX	S3200SH / S3210SH	SR1530SH	SR1530HSH	S3000PT	X38ML	SR1520ML	Notes
Seagate, Barracuda ES 7200.10, ST3250820NS	SATA-300	7200, 8MB cache	250	3.5x1	PATA/SATA Enterprise		SD									
Seagate, Barracuda ES 7200.10 (ROHS), ST3400620NS	SATA-300	7200, 16MB cache	400	3.5x1	PATA/SATA Enterprise		SD									
Seagate, Barracuda ES 7200.10 (ROHS), ST3400820NS	SATA-300	7200, 8MB cache	400	3.5x1	PATA/SATA Enterprise		SD									
Seagate, Barracuda ES 7200.10 (ROHS), ST3500630NS	SATA-300	7200, 16MB cache	500	3.5x1	PATA/SATA Enterprise	X	FT		FT				FT			+ This drive passed Intel's rotational vibration requirements in the SR2500AL system using the chassis RV improvements.
Seagate*, Barracuda ES 7200.10 (ROHS), ST3500830NS	SATA-300	7200, 8MB cache	500	3.5x1	PATA/SATA Enterprise		SD						SD			

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Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 3000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S3000AH	SR1530AH / SR1530AHLX	SR1530HAHLX	S3200SH / S3210SH	SR1530SH	SR1530HSH	S3000PT	X38ML	SR1520ML	Notes
Seagate, Barracuda ES 7200.10 (ROHS), ST3750840NS	SATA-300	7200, 8MB cache	750	3.5x1	PATA/SATA Enterprise		SD									
Seagate, Momentus 7200.1, ST980825AS	SATA-150	7200	80	2.5x1 <sup>+</sup>	Mobile								SD			+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Seagate, Momentus 7200.1, ST910021AS	SATA-150	7200	100	2.5x1 <sup>+</sup>	Mobile								FT			+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Seagate, Barracuda ES 7200.10, ST3250621NS	SATA-300	7200, 16MB cache	250	3.5x1	PATA/SATA Enterprise	X	SD	SD	SD				SD			+ This drive passed Intel's rotational vibration requirements in the SR2500AL system using the chassis RV improvements.
Seagate*, Barracuda ES 7200.10 (ROHS), ST3500631NS	SATA-300	7200, 16MB cache	500	3.5x1	PATA/SATA Enterprise	X	SD		SD				SD			+ This drive passed Intel's rotational vibration requirements in the SR2500AL system using the chassis RV improvements.

**Drive Classification:**

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Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 3000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S3000AH	SR1530AH / SR1530AHLX	SR1530HAHLX	S3200SH / S3210SH	SR1530SH	SR1530HSH	S3000PT	X38ML	SR1520ML	Notes
Seagate, Barracuda ES 7200.10 (ROHS), ST3750640NS	SATA-300	7200, 16MB cache	750	3.5x1	PATA/SATA Enterprise	X							SD			+ This drive passed Intel's rotational vibration requirements in the SR2500AL system using the chassis RV improvements.
Seagate, Barracuda ES.2 7200 ST3500320NS	SATA-300	7200, 32MB cache	500	3.5x1	PATA/SATA Enterprise	X	FT	SD	FT							
Seagate, Barracuda ES.2 7200 ST3250310NS	SATA-300	7200, 32MB cache	250	3.5x1	PATA/SATA Enterprise	X	SD	FT	SD	FT						
Seagate, Barracuda ES.2 7200 ST3250320NS	SATA-300	7200, 32MB cache	250	3.5x1	PATA/SATA Enterprise	X	FT	FT	SD							
Seagate*, Momentus 7200.2, ST9160823AS	SATA-300	7200	160, 8M	2.5x1 <sup>+</sup>	Mobile	X								SD	FT	+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.

Revision 23.0

Drive Classification:

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 3000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S3000AH	SR1530AH / SR1530AHLX	SR1530HAHLX	S3200SH / S3210SH	SR1530SH	SR1530HSH	S3000PT	X38ML	SR1520ML	Notes
Seagate, Momentus 7200.2, ST9200420AS	SATA-300	7200	200, 8M	2.5x1 <sup>+</sup>	Mobile	X								SD	FT	<sup>+</sup> This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Western Digital*, WD Caviar XL80-3 RE (RoHS), WD1600YD-01NVB1	SATA-150	7200, NCQ	160	3.5x1	PATA/SATA Enterprise		FT	SD	SD	FT	SD	SD				
Western Digital, WD Raptor EL150, WD360ADFD	SATA-150	10K, 16 MB cache	36	3.5x1	PATA/SATA Enterprise								FT	FT		
Western Digital, WD Raptor EL150, WD1500ADFD	SATA-150	10K, 16 MB cache	500	3.5x1	SATA Enterprise									FT		
Western Digital*, WD Raptor EL150, WD740ADFD	SATA-150	10 K, 16 MB cache	74	3.5x1	SATA Enterprise					FT	SD	SD		FT		

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 3000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S3000AH	SR1530AH / SR1530AHLX	SR1530HAHLX	S3200SH / S3210SH	SR1530SH	SR1530HSH	S3000PT	X38ML	SR1520ML	Notes
Western Digital, WD Raptor X, WD1500AHFD	SATA-150	10 K, 16 MB cache	150	3.5x1	SATA Enterprise									FT		
Western Digital, WD RE2, WD2500YS	SATA-300	7200	250	3.5x1	SATA Enterprise		FT		FT							Need firmware revision 20.06C06 or later; contact Western Digital for more information.
Western Digital, WD Caviar, WD740GD	SATA-150	10K	74	3.5x1	SATA Enterprise		FT						FT			

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

## 4.2 SAS Hard Drives - Intel® Xeon® Processor 3000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S3000AH	S3000PT	X38ML	Notes
Fujitsu*, AL9LX (RoHS), MAX3036RC	SAS-300	15 K	36	3.5x1	Enterprise			FT		
Hitachi*, Ultrastar 15K147 (RoHS), HUS151436VLS300	SAS-300	15 K	36	3.5x1	Enterprise			FT		
Seagate*, NL35, ST3400823NS	SAS-300	7200	250	3.5x1	Enterprise			FT		
Seagate*, Savio 10K.1, ST936701SS	SAS-300	10 K	36	2.5x1 <sup>+</sup>	Enterprise			FT		<sup>+</sup> This drive is only supported in a chassis that supports 2.5-inch form factor drives.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

### 4.3 Solid-State Drives - Intel® Xeon® Processor 3000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S3000AH	S3200SH / S3210SH	SR1530SH	S3000PT	X38ML	SR1520ML	Notes
Intel® X25-E Extreme SATA Solid-State Drive SSDSA2SE032G1											SD	SD	

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

#### 4.4 SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
						X	SD	SD	SD	FT	FT	FT	SD		FT	FT	FT	FT	
Hitachi*, Deskstar E7K500 (RoHS), HDS725050KLA360	SATA-300	7200	500	3.5x1	SATA Enterprise	X	SD	SD	SD	FT	FT	FT	SD		FT	FT	FT	FT	
Hitachi, Deskstar 7K160, HDS721616PLA380	SATA- 150/300	7200	160	3.5x1	Desktop	X						FT	SD		FT				Desktop drives may experience performance loss when used in an enterprise application.
Hitachi* Deskstar T7K500, HDT725025VLA360	SATA-300	7200	250	3.5x1	Desktop							FT							Desktop drives may experience performance loss when used in an enterprise application.
Hitachi, Deskstar T7K500, HDT725025VLA380	SATA-300	7200	250	3.5x1	Desktop		SD			SD	SD	SD				FT	FT	FT	Desktop drives may experience performance loss when used in an enterprise application.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi, Deskstar T7K500, HDT725032VLA360	SATA-300	7200	320	3.5x1	Desktop		SD			SD	FT	SD							Desktop drives may experience performance loss when used in an enterprise application.
Hitachi, Deskstar T7K500, HDT725040VLA360	SATA-300	7200	400	3.5x1	Desktop		SD			SD	SD	SD							Desktop drives may experience performance loss when used in an enterprise application.
Hitachi*, Deskstar T7K500, HDT725040VLA380	SATA-300	7200	400	3.5x1	Desktop							SD							Desktop drives may experience performance loss when used in an enterprise application.
Hitachi, Deskstar T7K500, HDT725050VLA360	SATA-300	7200	500	3.5x1	Desktop		SD			SD	SD	SD							Desktop drives may experience performance loss when used in an enterprise application.
Hitachi, Deskstar T7K500, HDT725050VLA380	SATA-300	7200	500	3.5x1	Desktop	X						FT	SD		FT				Desktop drives may experience performance loss when used in an enterprise application.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi, Deskstar 7K1000 HDS721050KLA300	SATA-300	7200	500	3.5x1	Desktop	X					FT	FT		SD	FT				This drives is geared towards low duty cycle servers and storage use.
Hitachi, Deskstar 7K1000 HDS721075KLA330	SATA-300	7200	750	3.5x1	Desktop	X	SD		FT	SD	FT	SD	FT		FT	SD	SD	FT	This drives is geared towards low duty cycle servers and storage use.
Hitachi, Deskstar 7K1000 HDS721010KLA330	SATA-300	7200	1000	3.5x1	Desktop	X	SD	SD	SD	SD	FT	FT	SD		FT				This drives is geared towards low duty cycle servers and storage use.
Hitachi, Deskstar 7K160 HDS721680PLA380	SATA -300	7200	80 GB	3.5-inch	Desktop	X	SD	SD	SD	SD	FT	FT	SD		FT				
Hitachi, Deskstar T7K500 HDT25050VLA380	SATA -300	7200	500 BG	3.5-inch	Desktop	X	SD	SD	SD	SD	SD	FT	SD		FT				

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.



Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes	
Hitachi, Deskstar T7K500 HDT725032VLA380	SATA - 300	7200	320 GB	3.5-inch	Desktop	X	SD	SD	SD	SD	SD	FT	SD		FT					
Hitachi, Deskstar 7K1000 HDS721050KLA330	SATA - 300	7200	500 GB	3.5-inch	Desktop	X	SD	SD	SD	SD	SD	FT	SD		FT					
Hitachi, Deskstar 7K1000.B HDT721010SLA360	SATA300	7200	1000 GB	3.5 x 1"	Desktop	X	SD	SD	SD	SD	SD	FT	SD		FT	FT	SD	FT		
Hitachi, Travelstar 5K160, HTS541610J9SA00	SATA-150	5400	100 GB	2.5x1 *	Mobile							SD		SD						+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 5K160, HTS541616J9SA00	SATA-150	5400	160	2.5x1 1"	Mobile							FT		FT						+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.

Revision 23.0

Drive Classification:

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi, Travelstar 5K160, HTS541640J9SA00	SATA-150	5400	40	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 5K160, HTS541660J9SA00	SATA-150	5400	60	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 5K160, HTS541680J9SA00	SATA-150	5400	80	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi*, Travelstar 7K100, HTS721010G9SA00	SATA-150	7200	100	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 7K100, HTS721060G9SA00	SATA-150	7200	60	2.5x1 <sup>+</sup>	Mobile							FT		FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi, Travelstar 7K100, HTS721080G9SA00	SATA-150	7200	80	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 5K160 HTS541616J9SA00	SATA-150	5400	160	2.5x1 <sup>+</sup>	Mobile							FT		FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives. Drives were tested at 1.5G/b sec due to errata #42 in the S5000PAL Monthly Specification update
Hitachi*, Travelstar 5K160 HTS541612J9SA00	SATA-150	5400	120	2.5x1 <sup>+</sup>	Mobile							FT		FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives. Drives were tested at 1.5G/b sec due to errata #42 in the S5000PAL Monthly Specification update
Hitachi, Travelstar 5K160 HTS541610J9SA00	SATA-150	5400	100	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives. Drives were tested at 1.5G/b sec due to errata #42 in the S5000PAL Monthly Specification update

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

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Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi, Travelstar 5K160 HTS541680J9SA00	SATA-150	5400	80	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 5K160 HTS541660J9SA00	SATA-150	5400	60	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi*, Travelstar 5K160 HTS541640J9SA00	SATA-150	5400	40	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 7K200, HTS722080K9A300	SATA-300	7200	80	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

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Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi, Travelstar 7K200, HTS722010K9A300	SATA-300	7200	100	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 7K200, HTS722012K9A300	SATA-300	7200	120	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi*, Travelstar 7K200, HTS722016K9A300	SATA-300	7200	160	2.5x1 <sup>+</sup>	Mobile							FT		FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar*7K200, HTS722020K9A300	SATA-300	7200	200	2.5x1 <sup>+</sup>	Mobile							FT		FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

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Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi, Travelstar 5K250, HTS542580K9A300	SATA-300	5400	80	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 5K250, HTS542580K9SA00	SATA-150	5400	80	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi*, Travelstar 5K250, HTS542512K9A300	SATA-300	5400	120	2.5x1 <sup>+</sup>	Mobile							FT		FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 5K250, HTS542512K9SA00	SATA-150	5400	120	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi, Travelstar 5K250, HTS542516K9SA00	SATA-150	5400	160	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 5K250, HTS542516K9A300	SATA-300	5400	160	2.5x1 <sup>+</sup>	Mobile							FT		FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi*, Travelstar 5K250, HTS542525K9A300	SATA-300	5400	250	2.5x1 <sup>+</sup>	Mobile							FT		FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Travelstar 5K250, HTS542525K9SA00	SATA-150	5400	250	2.5x1 <sup>+</sup>	Mobile							SD		SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi, Ultrastar A7K1000 HUA721075KLA330	SATA - 300	7200	750	3.5-inch		X	SD												
Hitachi*, Ultrastar A7K1000 HUA721010KLA330	SATA - 300	7200	1000	3.5-inch	Enterprise	X	SD	FT	FT	FT	FT	FT	FT		FT	SD	SD	FT	
Hitachi Travelstar 5K160 HTS541616J9SA00	SATA-300	54K	160	2.5"	Mobile	X						FT		FT					
Hitachi Travelstar 7K320 HTE723232L9A300	SATA-300	72K	320	2.5"	Mobile	X						FT		FT					

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.



Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes	
Hitachi Travelstar 7K320 HTE723225L9A300	SATA-300	72K	250	2.5"	Mobile	X						FT		FT						
Hitachi Travelstar 7K320 HTE723216L9A300	SATA-300	72K	160	2.5"	Mobile	X						FT		FT						
Hitachi Deskstar 7K1000.B HDT721032SLA360	SATA-300	7000	320	3.5x1	Desktop	x						FT	SD		FT					
Hitachi Deskstar 7K1000.B HDT721075SLA360	SATA-300	7000	750	3.5x1	Desktop	x						FT	SD		FT					

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi Deskstar 7K1000 HDE721010SLA330	SATA-300	7000	1000	3.5X1	Desktop	X	SD	SD	SD	SF	SF	FT	SD		FT	FT	SD	FT	
Seagate*, Barracuda ES 7200.10, ST3250620NS	SATA-300	7200, 16 MB cache	250	3.5x1	PATA/SATA Enterprise	X	SD			SD	SD	FT	SD		FT				+ This drive passed Intel's rotational vibration requirements in the SR2500AL system using the chassis RV improvements.
Seagate, Barracuda ES 7200.10, ST3250820NS	SATA-300	7200, 8 MB cache	250	3.5x1	PATA/SATA Enterprise							FT	SD		FT				
Seagate, Barracuda ES, ST3320620NS	SATA-300	7200, 16 MB cache	320	3.5x1	PATA/SATA Enterprise							FT	SD		FT				

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Seagate, Barracuda ES, ST3320820NS	SATA-300	7200, 8 MB cache	320	3.5x1	PATA/SATA Enterprise							FT	SD		FT				
Seagate*, Barracuda ES 7200.10 (ROHS), ST3400620NS	SATA-300	7200, 16 MB cache	400	3.5x1	PATA/SATA Enterprise							FT	SD		FT				
Seagate, Barracuda ES 7200.10 (ROHS), ST3400820NS	SATA-300	7200, 8 MB cache	400	3.5x1	PATA/SATA Enterprise							FT	SD		FT				
Seagate, Barracuda ES 7200.10 (ROHS), ST3500630NS	SATA-300	7200, 16 MB cache	500	3.5x1	PATA/SATA Enterprise	X						FT	SD		FT				+ This drive passed Intel's rotational vibration requirements in the SR2500AL system using the chassis RV improvements.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Seagate, Barracuda ES 7200.10 (ROHS), ST3500830NS	SATA-300	7200, 8 MB cache	500	3.5x1	PATA/SATA Enterprise		SD			SD	SD								
Seagate*, Barracuda ES 7200.10 (ROHS), ST3750640NS	SATA-300	7200, 16 MB cache	750	3.5x1	PATA/SATA Enterprise	X	SD	SD	SD	FT	FT	FT	SD		FT				+ This drive passed Intel's rotational vibration requirements in the SR2500AL system using the chassis RV improvements.
Seagate, Barracuda ES 7200.10 (ROHS), ST3750840NS	SATA-300	7200, 8 MB cache	750	3.5x1	PATA/SATA Enterprise		SD			FT	FT								
Seagate, Momentus 7200.1, ST980825AS	SATA-150	7200	80	2.5x1 <sup>+</sup>	Mobile							FT		FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Seagate, Momentus 7200.1, ST910021AS	SATA-150	7200	100	2.5x1 <sup>+</sup>	Mobile							FT		FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Seagate*, Barracuda ES 7200.10, ST3250621NS	SATA-300	7200, 16 MB cache	250	3.5x1	PATA/SATA Enterprise	X	SD			SD	SD	SD			SD				+ This drive passed Intel's rotational vibration requirements in the SR2500AL system using the chassis RV improvements.
Seagate, Barracuda ES 7200.10 (ROHS), ST3500631NS	SATA-300	7200, 16 MB cache	500	3.5x1	PATA/SATA Enterprise	X	SD			SD	SD	FT	SD		FT				+ This drive passed Intel's rotational vibration requirements in the SR2500AL system using the chassis RV improvements.
Seagate, Barracuda ES 7200.10 (ROHS), ST3750640NS	SATA-300	7200, 16 MB cache	750	3.5x1	PATA/SATA Enterprise	X				SD	SD	SD			SD				+ This drive passed Intel's rotational vibration requirements in the SR2500AL system using the chassis RV improvements.
Seagate, Barracuda ES.2 7200 ST3250310NS	SATA-300	7200, 32 MB cache	500	3.5x1	PATA/SATA Enterprise	X	FT	SD	SD	FT	FT	FT	FT		FT	FT	FT	SD	

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
						X	SD	FT	FT	FT	FT	FT	FT	FT	SD	FT	FT	SD	
Seagate*, Barracuda ES.2 7200 ST3500320NS	SATA-300	7200, 32 MB	500	3.5x1	PATA/SATA Enterprise	X	SD	FT	FT	FT	FT	FT	FT		SD	FT	FT	SD	
Western Digital*, Caviar XL107RE, WD3200SD	SATA-150	7200, 8 MB cache	320	3.5x1	PATA/SATA Enterprise		FT			FT	FT	FT							
Western Digital, WD Caviar SE16, WD4000KS	SATA-300	7200	400	3.5x1	PATA/SATA Enterprise							SD	SD		SD				
Western Digital, WD Caviar SE16, WD5000KS	SATA-300	7200	500	3.5x1	PATA/SATA Enterprise							FT	SD		FT				

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Western Digital*, WD Caviar XL100 RE, WD4000YR	SATA-300	7200	400	3.5x1	PATA/SATA Enterprise							FT	SD		FT				
Western Digital, WD Caviar XL80-3 RE (RoHS), WD1600YD- 01NVB1	SATA-150	7200, NCQ	160	3.5x1	PATA/SATA Enterprise											FT	FT	FT	
Western Digital, WD Caviar XL80-3, WD1200JS	SATA-300	7200, 8 MB cache	120	3.5x1	PATA/SATA Enterprise		SD			SD	SD	SD	SD		SD				
Western Digital, WD Caviar XL80-3, WD1600JS	SATA-300	7200, 8 MB cache	160	3.5x1	PATA/SATA Enterprise		FT			FT	FT	FT	SD		FT				

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Western Digital*, WD Caviar XL80-3, WD2000JS	SATA-300	7200, 16 MB cache	200	3.5x1	PATA/SATA Enterprise		SD			SD	SD	SD	SD		SD				
Western Digital, WD Caviar XL80-3, WD2500JS	SATA-300	7200, 16MB cache	250	3.5x1	PATA/SATA Enterprise		SD			SD	SD	SD	SD		SD				
Western Digital, WD Caviar XL80-3, WD2500KS	SATA-300	7200, 16MB cache	250	3.5x1	PATA/SATA Enterprise		SD			SD	SD	SD	SD		SD				
Western Digital, WD Caviar XL80-3, WD400JD	SATA-300	7200, 8MB buffer	40	3.5x1	PATA/SATA Enterprise		SD			SD	SD	SD	SD		SD				

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.



Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Western Digital*, WD Caviar XL80-3, WD800JD	SATA-300	7200, 8MB buffer	80	3.5x1	PATA/SATA Enterprise		SD			SD	SD	SD	SD		SD				
Western Digital, WD RE2, WD1600YS	SATA-300	7200	160	3.5x1	PATA/SATA Enterprise							SD	SD		SD				Need firmware revision 20.06C06 or later; contact Western Digital for more information.
Western Digital, WD RE2, WD2500YS	SATA-300	7200	250	3.5x1	PATA/SATA Enterprise							SD	SD		SD	FT	FT	FT	Need firmware revision 20.06C06 or later; contact Western Digital for more information.
Western Digital, WD RE2, WD3200YS	SATA-300	7200	320	3.5x1	PATA/SATA Enterprise							SD	SD		SD				

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Western Digital*, WD RE2, WD4000YS	SATA-300	7200	400	3.5x1	PATA/SATA Enterprise							SD	SD		SD	FT	FT	FT	Need firmware revision 09.02E09 or later; contact Western Digital for more information.
Western Digital, WD RE2, WD5000YS	SATA-300	7200	500	3.5x1	PATA/SATA Enterprise							FT	SD		FT				Need firmware revision 09.02E09 or later; contact Western Digital for more information.
Western Digital, WD Caviar, WD740GD	SATA-150	10K	74	3.5x1	PATA/SATA Enterprise		FT												
Western Digital, WD5000ABYS	SATA-300	7200K	500	3.5x1	PATA/SATA Enterprise		SD			SD	FT								

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Western Digital*, WD4000ABYS	SATA-300	7200K	400	3.5x1	PATA/SATA Enterprise		SD			SD	SD								
Western Digital, WD3200ABYS	SATA-300	7200K	320	3.5x1	PATA/SATA Enterprise		SD			SD	SD								
Western Digital, WD2500ABYS	SATA-300	7200K	250	3.5x1	PATA/SATA Enterprise		SD			SD	SD								
Western Digital, WD1600ABYS	SATA-300	7200K	160	3.5x1	PATA/SATA Enterprise		SD			SD	SD								

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Western Digital*, WD1000FYPS, WD RE2-GP	SATA-300	7200K	160	3.5x1	PATA/SATA Enterprise	X										SD	FT	SD	Western Digital, WD1000FYPS, WD RE2-GP
Western Digital, WD5001ABYS, WD RE2	SATA-300	7200K	160	3.5x1	PATA/SATA Enterprise	X										SD	FT	SD	
Western Digital, WD1601ABYS, WD RE2	SATA-300	7200K	160	3.5x1	PATA/SATA Enterprise	X			FT	FT						SD	FT	SD	
Western Digital, WD2502ABYS, WD RE3	STAT-300	7200K	250	3.5x1	SATA Enterprise	X				FT						SD	SD	FT	

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Western Digital, WD3202ABYS, WD RE3	SATA-300	7200K	320	3.5 x 1	SATA Enterprise	X					FT								
Western Digital*, WD5002ABYS, WD RE3	SATA-300	7200K	500	3.5x1	SATA Enterprise	X					FT					SD	SD	FT	
Western Digital, WD7502ABYS, WD RE3	SATA-300	7200K	750	3.5 x 1	SATA Enterprise	X					FT								
Wester Digital, WD1002FBYS, WD RE3	SATA-300	7200K	1000	3.5x1	SATA Enterprise	X					FT					SD	SD	FT	

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SATA Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530CL	SR1530HCL	S5000VSA	S5000PSL	S5000PAL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Western Digital, WD3000HLFS, WD VelociRaptor	SATA-300	10000K	300	3.5x1 (backplane- ready)	Enterprise	X	SD	SD	SD	SD	FT	FD	SD		FT	FT	SD	FT	3.5" backplane-ready

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

## 4.5 SAS Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530HCLS	S5000VSA	S5000PAL	S5000PSL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Fujitsu*, AL9LX (RoHS), MAX3036RC	SAS-300	15 K	36	3.5x1	Enterprise		SD	SD	FT	FT	FT	SD		FT				S5000PSL Product Family: Tested with 4HDD Expander Backplane
Fujitsu, AL9LX (RoHS), MAX3073RC	SAS-300	15 K	73	3.5x1	Enterprise		SD	SD	FT	SD	FT	SD		SD				S5000PSL Product Family: Tested with 4HDD Expander Backplane
Fujitsu, AL9LX (RoHS), MAX3147RC	SAS-300	15 K	147	3.5x1	Enterprise		SD	SD	FT	SD	FT	SD		SD				S5000PSL Product Family: Tested with 4HDD Expander Backplane
Fujitsu, AL10Se (RoHS), MBB2073RC	SAS-300	10 K	73	2.5x1	Enterprise	X				FT			FT					SR1550AL Product Family: Tested with 6HDD Backplane

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – **Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.**

Tested Hard Drives:SAS Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530HCLS	S5000VSA	S5000PAL	S5000PSL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Fujitsu*, AL10Se (RoHS), MBB2147RC	SAS-300	10 K	147	2.5x1	Enterprise	X				FT			FT					SR1550AL Product Family: Tested with 6HDD Backplane
Fujitsu, AL10SX (RoHS), MBC2073RC	SAS-300	15 K	73	2.5x1	Enterprise	X				FT			FT					SR1550AL Product Family: Tested with 6HDD Backplane
Fujitsu, AL10SX (RoHS), MBC2036RC	SAS-300	15 K	36	2.5x1	Enterprise	X				FT			FT					SR1550AL Product Family: Tested with 6HDD Backplane
Fujitsu, AL10LX (RoHS), MBA3300RC	SAS-300	15 K	300	3.5x1	Enterprise	X	SD	SD	SD	SD	FT	SD		FT	SD	FT	SD	S5000PSL Product Family: Tested with 6HDD Expander Backplane
Fujitsu, AL9SE (RoHS), MAY2036RC	SAS-300	10 K	36	2.5x1 <sup>+</sup>	Enterprise					SD			SD					<sup>+</sup> This drive is only supported in a chassis that supports 2.5-inch form factor drives.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.



Tested Hard Drives: SAS Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530HCLS	S5000VSA	S5000PAL	S5000PSL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Fujitsu*, AL9SE (RoHS), MAY2073RC	SAS-300	10 K	73	2.5x1 +	Enterprise					SD			SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Fujitsu, AL10X (RoHS), MBA3147RC	SAS - 300	15 K	147	3.5x1	Enterprise	X	SD	SD	SD	FT	FT	SD		FT	SD	FT	SD	SC5400LX SAS Product, Tested with 6HDD Expander Backplane
Hitachi, Ultrastar 15K147(RoHS), HUS151436VL S300	SAS-300	15 K	36	3.5x1	Enterprise		FT	SD	FT	FT	FT	SD		FT	FT	SD	FT	
Hitachi*, Ultrastar 15K147(RoHS), HUS151473VL S300	SAS-300	15 K	73	3.5x1	Enterprise	X	SD	SD	SD	SD	FT	SD		SD	FT	SD	FT	
Hitachi, Ultrastar C10K147 HUC101414CS S300	SAS-300	10 K	147	2.5x1 +	Enterprise					FT			FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – **Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.**

Tested Hard Drives:SAS Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530HCLS	S5000VSA	S5000PAL	S5000PSL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi, Ultrastar C10K147 HUC101473CS S300	SAS-300	10 K	73	2.5x1 <sup>+</sup>	Enterprise					FT			FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Hitachi, Ultrastar 15K300 HUS153073VL S300	SAS-300	15 K	73	3.5x1	Enterprise		SD	SD	SD		FT							
Hitachi, Ultrasta* 15K300 HUS153014VL S300	SAS-300	15 K	147	3.5x1	Enterprise	X	SD	SD	FT	SD	FT	SD		FT	SD	FT	SD	
Hitachi*, Ultrastar 15K300 HUS153030VL S300	SAS-300	15 K	300	3.5x1	Enterprise	X	SD	SD	SD	FT	FT	SD		FT	FT	FT	SD	
Hitachi Ultrastar 15K450 HUS154530VL S300	SAS-300	15K	300	3.5x1	Enterprise	X	SD	SD	SD	FT		SD		FT	FT	SD	FT	

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SAS Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530HCLS	S5000VSA	S5000PAL	S5000PSL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Hitachi Ultrastar 15K147 HUS151414VL S300	SAS-300	15K	147	3.5x1	Enterprise	X	SD	SD	SD	SD	SD	FT		FT				
Hitachi Ultrastar 15K450 HUS154545VL S300	SAS-300	15K	450	3.5 x 1	Enterprise	X	SD	SD	SD	SD	FT	SD		FT	SD	SD	FT	
Seagate*, Cheetah 15K.5, ST3300655SS	SAS-300	15 K	300	3.5x1	Enterprise		SD	SD	SD	FT	FT	SD		FT				
Seagate, Cheetah 15K.5, ST3146855SS	SAS-300	15 K	147	3.5x1	Enterprise		SD	SD	SD	SD	SD	SD		SD				
Seagate, Cheetah 15K.5, ST373455SS	SAS-300	15 K	73	3.5x1	Enterprise		SD	SD	SD	SD	SD	SD		SD	FT	SD	FT	

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – **Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.**

Tested Hard Drives:SAS Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530HCLS	S5000VSA	S5000PAL	S5000PSL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Seagate*, Savio 10K.1, ST936701SS	SAS-300	10 K	36	2.5x1 +	Enterprise					FT			FT					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Seagate, Savio 10K.1, ST973401SS	SAS-300	10 K	73	2.5x1 +	Enterprise					SD			SD					+ This drive is only supported in a chassis that supports 2.5-inch form factor drives.
Seagate, Savio 10K.2, ST9146802SS	SAS-300	10 K	147	2.5x1 +	Enterprise	X				FT			FT					SR1550AL Product Family: Tested with 6HDD Backplane
Seagate, Savio 10K.2, ST973402SS	SAS-300	10 K	73	2.5x1 +	Enterprise	X				FT			FT					SR1550AL Product Family: Tested with 6HDD Backplane
Seagate, Savio 15K.1, ST973451SS	SAS-300	15 K	73.4	2.5x1 +	Enterprise	X				FT			FT					SR1550AL Product Family: Tested with 6HDD Backplane

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

Tested Hard Drives: SAS Hard Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	RV Testing	S5000VCL	SR1530HCLS	S5000VSA	S5000PAL	S5000PSL	SR1500AL	SR1550AL	SR2500AL	S5400SF	SR1560SF	SR1560SFHS	Notes
Seagate*, Savio 15K.1, ST936751SS	SAS-300	15 K	36	2.5x1 +	Enterprise	X				FT			FT					SR1550AL Product Family: Tested with 6HDD Backplane
Seagate, Cheetah 15K.6, ST3146356SS	SAS-300	15 K	147	3.5x1	Enterprise	X				SD	SD				SD	SD	SD	
Seagate, Cheetah 15K.6, ST3300656SS	SAS-300	15 K	300	3.5x1	Enterprise	X	SD	SD	SD	SD	FT	SD		FT	SD	SD	FT	
Seagate Cheetah 15K.6, ST3450856SS	SAS-300	15K	450	3.5x1	Enterprise	X					SD	FT			FT	SD	SD	
Seagate, Cheetah NS, ST3400755SS	SAS-300	10 K	400,16M	3.5x1	Enterprise	X					FT				SD	SD	FT	

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – **Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.**

#### 4.6 Solid-State Drives - Intel® Xeon® Processor 5000 Sequence-based Servers

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	Size (GB)	Form Factor	Drive Classification	S5000VCL	SR1530CL	S5000VSA	S5000PSL	S5000PAL	SR1550AL	S5400SF	SR1560SF	Notes
Intel® X25-E Extreme SATA Solid-State Drive SSDSA2SE032G1	SATA-300	32GB	2.5 x 1	SSD-SATA					FT	FT			

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.

### 4.7 External USB Hard Drives

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	S3000AH	S3000PT	S5000PAL	S5000VCL	S5000VSA	S5000PSL	Notes
			Product Family			Product Family	Product Family	Product Family	Product Family	Product Family		
Hitachi*, Easy Drive External Storage H2250U	USB 2.0		250 GB	2.5	External Storage			FT				
Hitachi, Easy Drive External Storage H2200U	USB 2.0		200 GB	2.5	External Storage			SD				
Hitachi, Easy Drive External Storage H2160U	USB 2.0		160 GB	2.5	External Storage			SD				
Hitachi, Easy Drive External Storage H31000U	USB 2.0		1000 GB	3.5	External Storage			FT				

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – **Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.**

Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	S3000AH Product Family	S3000PT	S5000PAL Product Family	S5000VCL Product Family	S5000VSA Product Family	S5000PSL Product Family	Notes
Hitachi*, Easy Drive External Storage H3750U	USB 2.0		750 GB	3.5	External Storage			SD				
Hitachi, Easy Drive External Storage H3500U	USB 2.0		500 GB	3.5	External Storage			SD				
Hitachi, Easy Drive External Storage H2200U	USB 2.0		200 GB	2.5	External Storage			SD				
Hitachi, Easy Drive External Storage H2160U	USB 2.0		160 GB	2.5	External Storage			SD				
Hitachi, Easy Drive External Storage H31000U	USB 2.0		1 TB	3.5	External Storage	FT		FT	SD	SD	FT	
Hitachi, Easy Drive External Storage H2250U	USB 2.0		250 GB	2.5	External Storage	FT		FT	SD	SD	FT	



Hard Drive (Vendor Name, Model Name, Model Number)	Interface	RPM	Size (GB)	Form Factor	Drive Classification	S3000AH	S3000PT	S5000PAL	S5000VCL	S5000VSA	S5000PSL	Notes
			Product Family	Product Family		Product Family	Product Family	Product Family	Product Family			
Hitachi*, Easy Drive External Storage H3750U	USB 2.0		750 GB	3.5	External Storage	SD		SD	SD	SD	SD	
Hitachi, Easy Drive External Storage H3500U	USB 2.0		500 GB	3.5	External Storage	SD		SD	SD	SD	SD	
Hitachi, Easy Drive External Storage H2200U	USB 2.0		200 GB	2.5	External Storage	SD		SD	SD	SD	SD	
Hitachi, Easy Drive External Storage H2160U	USB 2.0		160 GB	2.5	External Storage	SD		SD	SD	SD	SD	

**Drive Classification:**

**Desktop** – Operation is not mission critical, duty cycle is low with occasional availability issues.

**PATA/SATA Enterprise** – Operation is business critical, duty cycle and performance is low but adequate for entry level server applications; can work reliably in RAID configurations.

**Enterprise** – **Operation is mission critical, duty cycle and performance is high. Best choice for application requiring minimal down time, is transaction sensitive, or requires highest level of data integrity.**